

Amendments to the Claims:

1-33. (Cancelled)

34. (Currently amended) A multi-tier system for digital radio communication, comprising:

a processor-based host adapted to control a plurality of remote unit units, wherein the

host is connected to a wired local area network;

a first-tier base station communicatively coupled to the host through the wired local area

network, wherein the first-tier base station is adapted to communicate with the

host using a local area network communication protocol and to communicate

with a second-tier base station using operates in accordance with a first

communication protocol;

a first second-tier base station communicatively coupled to the first-tier base station

through a wired link that is distinct from the local area network, wherein the first

second-tier base station and the first-tier base station communicate using the first

communications protocol; and

a plurality of second additional second-tier base station stations wirelessly coupled in

series to the first second-tier base station, wherein the plurality of additional

second second-tier base station is stations are intermediate the first second-tier

base station and the plurality of remote unit units, and wherein the first second-

tier base station is capable of communicating with a second-tier base station of

the second plurality of second-tier base station stations without an intervening

first-tier base station using a different communications protocol from the first communications protocol,

wherein the host is adapted to control the plurality of remote ~~unit~~ units through the first-tier base station, the first second-tier base station, and the ~~second~~ plurality of additional second-tier base ~~station~~ stations.

35. (Currently amended) A multi-tier system for digital radio communication, comprising:

a processor-based host adapted to control a remote unit;

a first-tier base station communicatively coupled to the host;

a first second-tier base station communicatively coupled to the first-tier base station;

and

a second second-tier base station wirelessly coupled to the first second-tier base station,

wherein the second second-tier base station is intermediate the first second-tier

base station and the remote unit, and wherein the first second-tier base station is

capable of communicating with the second second-tier base station without an

intervening first-tier base station,

wherein the host is adapted to control the remote unit through the first-tier base station,

the first second-tier base station, and the second second-tier base station[.] ,

and

wherein the second second-tier base station is adapted to go into a sleep mode for a

preselected interval, wherein before entering the sleep mode, the second second-

tier base station transmits an indication representative of the duration of the preselected interval to the remote unit.

36. (Previously presented) The system of claim 35, wherein the duration of the preselected interval is defined by a start and end time of the preselected interval.

37. (Currently amended) The system of claim 34, wherein ~~the second second-tier base station is each of the plurality of additional second-tier base stations~~ is adapted to:

buffer data intended for the remote unit;

transmit an indication at predetermined intervals to inform the remote unit of the presence of buffered data;

receive a request from the remote unit; and

provide the buffered data to the remote unit in response to receiving the request from the remote unit.

38. (Currently amended) The system of claim 34, wherein ~~the at least one~~ remote unit comprises a data collection device.

39. (Currently amended) The system of claim 34, wherein ~~the at least one~~ remote unit comprises a bar code reader or an RFID reader.

40. (Currently amended) The system of claim 34, wherein ~~the at least one~~ remote unit comprises at least one of a vending machine, door locking mechanism, computer peripheral, thermostat, and pager.

41. (Currently amended) The system of claim 40, wherein ~~the at least one~~ remote unit comprises a computer peripheral selected from the group comprising a printer, modem, handheld terminal, point of sale station, and other serial or parallel devices.

42. (Cancelled)

43. (Previously presented) The system of claim 34, wherein the first-tier base station is wirelessly connected to the local area network.

44. (Previously presented) The system of claim 34, wherein the first second-tier base station is connected to the first-tier base station through a serial port.

45. (Cancelled)

46. (Currently amended) The system of claim 34, wherein ~~the second plurality of additional second-tier base station communicates stations communicate~~ with the first-tier base station through the first second-tier base station.

47. (Currently amended) A multi-tier system for digital radio communication, comprising:

a processor-based host adapted to control a plurality of remote unit units through a control signal, wherein the host is connected to a wired local area network;

a first-tier base station adapted to receive the control signal from the host through the wired local area network, wherein the first-tier base station is adapted to communicate with the host using a local area network communication protocol and to communicate with a second-tier base station using operates in accordance with a first communication protocol;

a first second-tier base adapted to receive the control signal from the first-tier base station over a wired link that is distinct from the local area network, wherein the first second-tier base station and the first-tier base station communicate using the first communications protocol; and

a second plurality of second-tier base station stations wirelessly coupled in series to the first second-tier base station, wherein the second plurality of second-tier base station is stations are intermediate the first second-tier base station and the plurality of remote unit units, and wherein the second plurality of second-tier base station is stations are adapted to receive the control signal from the first second-tier base station using a different communications protocol from the first communications protocol and to provide the control signal to at least one remote unit of the plurality of remote unit units.

48. (Cancelled)

49. (Currently amended) ~~The system of claim 47,~~ A multi-tier system for digital radio communication, comprising:

a processor-based host adapted to control a remote unit through a control signal;

a first-tier base station adapted to receive the control signal from the host, wherein the first-tier base station operates in accordance with a first communication protocol;

a first second-tier base adapted to receive the control signal from the first-tier base station, wherein the first second-tier base station and the first-tier base station communicate using the first communications protocol; and

a second second-tier base station wirelessly coupled to the first second-tier base station, wherein the second second-tier base station is intermediate the first second-tier base station and the remote unit, and wherein the second second-tier base station is adapted to receive the control signal from the first second-tier base station using a different communications protocol from the first communications protocol and to provide the control signal to the remote unit, and

wherein the second second-tier base station is adapted to go into a sleep mode for a preselected interval, wherein before entering the sleep mode, the second second-tier base station transmits an indication representative of the duration of the preselected interval to the remote unit.

50. (Previously presented) The system of claim 49, wherein the duration of the preselected interval is defined by a start and end time of the preselected interval.

51. (Cancelled)

52. (Cancelled)

53. (Currently amended) The system of claim 34, wherein ~~the second second tier base station is each of the plurality of additional second-tier base stations~~ is adapted to:

transmit an associate command to the remote unit;

receive a message from the remote unit in response to the associate command, wherein

the message comprises an identifier associated with the remote unit; and

transmit a synchronization interval to the remote unit in response to receiving the message.

54. (Currently amended) The system of claim 48, wherein ~~the second second tier base station is each of the plurality of additional second-tier base stations~~ is adapted to:

transmit an associate command to the remote unit;

receive a message from the remote unit in response to the associate command, wherein

the message comprises an identifier associated with the remote unit; and

transmit a synchronization interval to the remote unit in response to receiving the message.

55. (Currently amended) A multi-tier system for digital radio communication, comprising:

a processor-based host adapted to control a plurality of remote unit units, wherein the host is connected to a wired local area network;

a first-tier base station communicatively coupled to the host through the wired local area network, wherein the first-tier base station is adapted to communicate with the host using a local area network communication protocol and to communicate with a second-tier base station using operates in accordance with a first communication protocol;

a first second-tier base station communicatively coupled to the first-tier base station through a wired link that is distinct from the local area network, wherein the first second-tier base station and the first-tier base station communicate using the first communications protocol; and

a second plurality of second-tier base station stations wirelessly coupled in series to the first second-tier base station, wherein the second plurality of second-tier base station is stations are intermediate the first second-tier base station and the plurality of remote unit units, and wherein the plurality of second-tier base stations have a shorter short transmission range relative to that of the first-tier base station,

wherein the host is adapted to control the remote unit through the first-tier base station, the first second-tier base station, and the plurality of second-tier base station stations.

56. (Currently amended) ~~The system of claim 55, A multi-tier system for digital radio communication, comprising:~~

a processor-based host adapted to control a remote unit;

a first-tier base station communicatively coupled to the host, wherein the first-tier base station operates in accordance with a first communication protocol;

a first second-tier base station communicatively coupled to the first-tier base station, wherein the first second-tier base station and the first-tier base station communicate using the first communications protocol; and

a second second-tier base station wirelessly coupled to the first second-tier base station, wherein the second second-tier base station is intermediate the first second-tier base station and the remote unit, and wherein the second-tier base stations have a shorter transmission range relative to that of the first-tier base station,

wherein the host is adapted to control the remote unit through the first-tier base station, the first second-tier base station, and the second second-tier base station, and

wherein the second second-tier base station is adapted to go into a sleep mode for a preselected interval, wherein before entering the sleep mode, the second second-tier base station transmits an indication representative of the duration of the preselected interval to the remote unit.

57. (Previously presented) The system of claim 56, wherein the duration of the preselected interval is defined by a start and end time of the preselected interval.

58. (Currently amended) The system of claim 55, wherein ~~the second second-tier base station is each of the plurality of additional second-tier base stations~~ is adapted to:

transmit an associate command to the remote unit;

receive a message from the remote unit in response to the associate command, wherein the message comprises an identifier associated with the remote unit; and

transmit a synchronization interval to the remote unit in response to receiving the message.